

Appln No. 10/716,812
Amdt date February 1, 2007
Reply to Office action of November 2, 2006

REMARKS/ARGUMENTS

In the Office action dated November 2, 2006, the examiner rejected claims 3, 5-7, 11-15, 17-21 and 25-29 under 35 U.S.C. § 112, second paragraph as allegedly indefinite. Applicant has amended certain of these claims using the examiner's suggestions for guidance. However, applicant has not made the examiner's suggested amendment to claim 17. The examiner suggested amending claim 17 to recite that "the non-aqueous organic solvent further comprises a secondary additive." Applicant did not make this amendment because it is the electrolyte, and not the non-aqueous organic solvent, that further comprises the secondary additive. In light of these amendments and remarks, applicant respectfully requests withdrawal of this rejection.

The examiner also rejected claims 1-12, 16-19, 23-26 and 30-32 under 35 U.S.C. §102(e) as allegedly anticipated by Iwamoto, et al. (U.S. Patent No. 6,958,198). In response, applicant has amended independent claim 1 to include the limitations of claim 10, amended claim 11 to depend from claim 1, and has canceled claim 10. In particular, applicant has amended claim 1 to recite that the additive compound has at least two carbonate groups and at least one carbon-to-carbon double bond. Iwamoto fails to teach or suggest such a feature.

Moreover, Iwamoto discloses use of not more than 30% by weight of carboxylic acid esters. In contrast, the current claims recite use of 20 to 95 vol% of an ester- or ether-based organic solvent. Use of high boiling point solvents in an amount greater than about 30 vol% generally results in deterioration of battery capacity and cycle life characteristics. However, according to the present invention, use of such a solvent in an amount greater than 30 vol% does not give rise to these effects. Accordingly, independent claim 1, and all claims dependent therefrom, including claims 2-9, 11, 12 and 16-22, are allowable over Iwamoto.

Similarly, applicant has amended independent claim 23 to recite the limitations of claim 24, canceled claim 24 and amended claim 25 to depend from claim 23. Specifically, applicant has amended claim 23 to recite that the additive compound has at least two carbonate groups and at least one carbon-to-carbon double bond. Iwamoto fails to teach or suggest such a feature. Accordingly, independent claim 23, and all claims dependent therefrom including claims 25, 26 and 30-32, are allowable over Iwamoto.

Appln No. 10/716,812
Amdt date February 1, 2007
Reply to Office action of November 2, 2006

In addition, the examiner rejected claims 20-22 under § 103(a) as allegedly obvious over Iwamoto in view of Hamamoto, et al. (JP 11-329494). However, each of claims 20-22 depends from independent claim 1, which now recites that the additive compound has at least two carbonate groups and at least one carbon-to-carbon double bond. Hamamoto also fails to teach or suggest this feature. Therefore, independent claim 1, and all claims dependent therefrom, including claims 20-22, are allowable over Iwamoto and Hamamoto.

As amended independent claim 23 also recites that that additive compound has at least two carbonate groups and at least one carbon-to-carbon double bond, claim 23, and all claims dependent therefrom, including claims 25, 26 and 30-32, are also allowable over Iwamoto and Hamamoto.

Applicant notes that claims 13, 15, 27 and 28 were not rejected over any prior art reference. Indeed, the references cited by the examiner fail to teach or suggest the limitations of these claims. Accordingly, applicant has amended these claims to be independent and submits that these claims, and all claims dependent therefrom, are allowable over the cited prior art references.

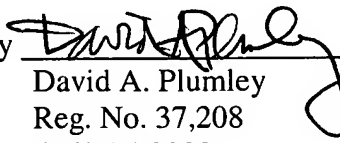
Finally, applicant has amended claims 4, 14, 18, 19 and 29 to correct minor typographical or grammatical errors and/or to improve their clarity. Applicant has also amended the recitation for the negative electrode of claim 23 for the purpose of more clearly reciting this feature.

Claims 1-9, 11-23 and 25-32 now remain pending in this application. By this amendment, applicant has amended claims 1, 3-7, 11, 13-15, 18, 19, 22, 23, 25 and 27-29, and canceled claims 10 and 24. The amendments find full support in the original specification, claims and drawings. No new matter is presented. In view of the above amendments and remarks, applicant submits that all of pending claims 1-9, 11-23 and 25-32 are in condition for

Appln No. 10/716,812
Amdt date February 1, 2007
Reply to Office action of November 2, 2006

allowance. Applicant therefore respectfully requests a timely indication of allowance. However, if there are any remaining issues that can be addressed by telephone, applicant invites the examiner to contact applicant's counsel at the number indicated below.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 
David A. Plumley
Reg. No. 37,208
626/795-9900

LES/les

MMM PAS721535.1-*02/1/07 10:54 AM